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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/621,750	07/21/2000	Hsiang-Chou Huang	JCLA5249	4724

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EXAMINER	
MASKULINSKI, MICHAEL C	
ART UNIT	**PAPER NUMBER**
2184	7

DATE MAILED: 12/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/621,750	HUANG ET AL.	
	Examiner	Art Unit	
	Michael C Maskulinski	2184	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-6 and 15-20* is/are allowed.

6)☒ Claim(s) *7-11,13 and 14* is/are rejected.

7)☒ Claim(s) *12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 July 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Non-Final Office Action

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 7-11, 13, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Wang et al., U.S. Patent 6,484,281 B1.

Referring to claim 7, in column 5, lines 54-67, Wang et al. disclose that the software-based simulation system of the invention is designed for use with a South Bridge chipset, which is used to simulate the functionality of a PCI-to-ISA bridge controller. The South Bridge chipset is connected between a PCI bus and an ISA bus and is coupled via an IDE interface to an IDE device, via an AC-Link interface to a codec unit, and via a USB interface to a USB device. Further, the South Bridge chipset is coupled via the PCI bus to a PCI master modeling circuit (pmstr), a PCI slave modeling circuit (pslave), and a PCI arbiFile: trator simulation circuit (pciarb), and via the ISA bus to an ISA master simulation circuit (imastr) and an ISA slave simulation circuit (islav) (concurrently activating said components by at least one command to simulate a certain task). Through the simulation of the components connected to the South Bridge, two or more components are competing for access to a resource and the

South Bridge is acting as the arbiter to perform arbitration for these competing components because a South Bridge by its nature is an arbiter.

Referring to claim 8, in column 6, lines 4-15, Wang et al. disclose that the PCI master modeling circuit is designed to simulate the functionality of a PCI master unit and is capable of generating a North-Bridge-specific set of output cycles in addition to the PCI-specific output cycles, including IOR (Input/Output Read) cycle, IOW (Input/Output Write) cycle, MEMR (Memory Read) cycle, MEMW (Memory Write) cycle, INTA (Interrupt Acknowledge) cycle, and SC (Special Cycle) cycle. Further, the PCI master modeling circuit can receive and process a North-Bridge-specific set of input signals in addition to the PCI-specific input signals, including INTR (Interrupt Request) signal, INIT (Initiation) signal, and STPCLK (Stop Clock) signal (wherein said one command is generated from a command sequence, with each command in said sequence being used to simulate a certain task).

Referring to claim 9, in the Abstract, Wang et al. disclose a software-based simulation system that is provided, which can provide the combined functionality of a South Bridge test module and a North Bridge test module based solely on either one of the two modules. It is inherent to both a North Bridge and a South Bridge to perform arbitration between said competing components and to put said competing components into idle state.

Referring to claim 10, in the Abstract, Wang et al. disclose that the software-based simulation system is characterized in the use of a PCI master modeling circuit and a PCI slave modeling circuit (wherein the resource is a PCI bus).

Referring to claim 11, in column 6, lines 4-15, Wang et al. disclose that the PCI master modeling circuit is designed to simulate the functionality of a PCI master unit and is capable of generating a North-Bridge-specific set of output cycles in addition to the PCI-specific output cycles, including IOR (Input/Output Read) cycle, IOW (Input/Output Write) cycle, MEMR (Memory Read) cycle, MEMW (Memory Write) cycle, INTA (Interrupt Acknowledge) cycle, and SC (Special Cycle) cycle. Further, in column 7, lines 58-64, Wang et al. disclose an internal memory (wherein the resource is a memory unit).

Referring to claims 13 and 14, in the Abstract Wang et al. disclose a North Bridge and a South Bridge.

Allowable Subject Matter

3. Claims 1-6 and 15-20 are allowed.

4. The following is an examiner's statement of reasons for allowance:

Referring to claims 1 and 15, in an integrated testing method capable of performing a test procedure concurrently in a multitasking manner on a number of computer components through software simulation, the prior art does not teach or reasonably suggest generating a start time of operation based on a specified random number range.

5. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,637,019 B1	Rinaldi
U.S. Patent 6,535,841 B1	Meyer
U.S. Patent 6,405,326 B1	Azagury et al.
U.S. Patent 6,002,854	Lynch et al.
U.S. Patent 5,274,774	Manber et al.
U.S. Patent 5,088,024	Vernon et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C Maskulinski whose telephone number is (703) 308-6674. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MM

ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100